Investigation of the effectiveness of nutrition intervention, in the management of malnutrition in colorectal patients receiving chemotherapy

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Background: Malnutrition is prevalent in the colorectal cancer population and can impact treatment tolerance and outcome. A study showed malnutrition prevalence in Western Health (WH) colorectal cancer patients was 46%. WH's catchment area is one of the fastest growing population corridors in Australia, encompassing diverse cultural and linguistic backgrounds and a higher incidence of colorectal cancer. The hypothesis was that individualised nutrition intervention of colorectal cancer patients receiving chemotherapy would improve nutritional status and quality of life.
Methods: A prospective randomised controlled trial (RCT) was conducted. Patients receiving chemotherapy for colorectal cancer at WH were eligible. Informed consent was gained, using interpreters as required. Patients were randomised to the control or intervention group. Nutritional status [Weight, BMI, Patient Generated Subjective Global Assessment (PGSGA)] and quality of life (EORTC QLQ-CR30 validated multicultural tool for cancer patients) were measured at baseline and 3 months. The control group received 'usual care'. The intervention group received dietary assessment and individualised education and supplements when indicated. Malnourished patients were reviewed monthly.
Results: Forty patients were recruited with 13% from a non-English speaking background. There was a trend towards improved nutritional status in the intervention group (BMI, PGSGA) compared with the control group however statistical significance was not achieved ($p = 0.31$, $p = 0.38$). There was no difference in QOL scores between the two groups. The intervention group increased their dietary energy intake by 9% ($p = 0.02$, statistically significant). There was also a trend for increased protein and fluid intake (2%, 5.1%) ($p = 0.79$, $p = 0.20$).
Discussion: This study showed trends towards improved nutritional status with individualised nutritional intervention for chemotherapy colorectal cancer patients.. The lack of statistical significance is likely due to the smaller than predicted participants and a large withdrawal rate. The study increased the dietetic profile and awareness of identifying and treating malnutrition in the chemotherapy centre.

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